Release notes for ENDF/B Development e-046_Pd_000 evaluation

October 13, 2016

- `fudge-4.0` Warnings:

  1. Mislabled emitted particle
     Reading ENDF file: ../e-046_Pd_000.endf (Error # 0): ZAP messed up

     `WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0`

  2. FIXME: Generic fudge unimplemented message
     reaction label 1: e- + Pd + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)

     `WARNING: Checking not yet implemented for energyLoss type data`

  3. FIXME: Generic fudge unimplemented message
     reaction label 2: e- + Pd [excitation] / Product: e- (Error # 0): Generic unimp (c)

     `WARNING: Checking not yet implemented for energyLoss type data`

- `fudge-4.0` Errors:

  1. Calculated and tabulated thresholds don't agree
     reaction label 0: e- + Pd [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  2. Calculated and tabulated thresholds don't agree
     reaction label 1: e- + Pd + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  3. Calculated and tabulated thresholds don't agree
     reaction label 2: e- + Pd [excitation] / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  4. Calculated and tabulated thresholds don't agree
     reaction label 3: e- + e- + Pd1s1/2 / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 24321. eV!`

  5. Calculated and tabulated thresholds don't agree
     reaction label 4: e- + e- + Pd2s1/2 / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3580. eV!`

  6. Calculated and tabulated thresholds don't agree
     reaction label 5: e- + e- + Pd2p1/2 / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3332.6 eV!`

  7. Calculated and tabulated thresholds don't agree
     reaction label 6: e- + e- + Pd2p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3170.6 eV!
```

8. Calculated and tabulated thresholds don't agree
   reaction label 7: e- + e- + Pd3s1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 654.9400000000001 eV!
```

9. Calculated and tabulated thresholds don't agree
   reaction label 8: e- + e- + Pd3p1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 555.25 eV!
```

10. Calculated and tabulated thresholds don't agree
    reaction label 9: e- + e- + Pd3p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 526.8 eV!
```

11. Calculated and tabulated thresholds don't agree
    reaction label 10: e- + e- + Pd3d3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 348.24 eV!
```

12. Calculated and tabulated thresholds don't agree
    reaction label 11: e- + e- + Pd3d5/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 342.51 eV!
```

13. Calculated and tabulated thresholds don't agree
    reaction label 12: e- + e- + Pd4s1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 91.01000000000001 eV!
```

14. Calculated and tabulated thresholds don't agree
    reaction label 13: e- + e- + Pd4p1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 59.68 eV!
```

15. Calculated and tabulated thresholds don't agree
    reaction label 14: e- + e- + Pd4p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 55.09 eV!
```

16. Calculated and tabulated thresholds don't agree
    reaction label 15: e- + e- + Pd4d3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.140000000000001 eV!
```

17. Calculated and tabulated thresholds don't agree
    reaction label 16: e- + e- + Pd4d5/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.67 eV!
```

- `xsectplotter` Warnings:

   1. Mislabled emitted particle
      Error: ZAP messed up

```
stderr while processing crossSection

        WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
... [2 more lines]
```